

ABSTRACT

A flow distributor for mounting in an inlet of a heat exchanger includes a nose cone and one or more diverting rings. The nose cone is aerodynamically shaped to divert impingent gas flow around the nose cone. A first diverting ring is spaced outwardly from the nose cone and can be oriented such that at least a portion of the gas flow diverted by the nose cone is redirected into the wake of the nose cone. A second diverting ring can be spaced outwardly from the first diverting ring and can be oriented to divert gas flow impingent thereon. Struts connect the nose cone and one or more rings. Refractory on the wall of the inlet is shaped to reduce the recirculation at the outer perimeter thereof. The flow distributor is installed in the inlet with refractory to achieve substantially equal flow across the tube sheet of the heat exchanger.